

Listing of Claims

1. (Original) A shrink film comprising a polyethylene film, characterized in that said polyethylene is an ethylene copolymer mixture having a molecular weight distribution in the range 10 to 35, a density of 915 to 940 kg/m³, a weight average molecular weight of at least 100000 D and an MFR_{2.16} (190°C) of 0.1 to 0.9 kg/m³, which copolymer mixture is produced by a two or more stage copolymerization of ethylene and 2 to 10% mole (relative to ethylene) of a C₃₋₁₂ alpha-olefin comonomer in a series of reactors including at least one slurry loop reactor and at least one gas phase reactor using a heterogeneous Ziegler-Natta catalyst.

2. (Original) A shrink film as claimed in claim 1 wherein the molecular weight of the copolymer is 150000 to 300000D.

3. (Original) A shrink film as claimed in claim 1 wherein the molecular weight of the copolymer is at least 226,000 D.

4. (Currently amended) A shrink film as claimed in claim 1 ~~any one of claims 1 to 3~~ wherein the MWD of the copolymer is between 15 and 23.

5. (Currently amended) A shrink film as claimed in claim 1 ~~any one of claims 1 to 4~~ wherein said copolymer is bimodal and comprises a lower molecular weight component and a higher molecular weight component.

6. (Currently amended) A shrink film as claimed in claim 1 ~~any one of claims 1 to 5~~ wherein said copolymer comprises a lower molecular weight component and a higher molecular weight component both formed from an ethylene/butene copolymer.

7. (Currently amended) A shrink film as claimed in claim 1 ~~any one of claims 1 to 6~~
wherein the density of the lower molecular weight component is at least 945 kg/m^3 .
8. (Currently amended) A shrink film as claimed in claim 1 ~~any one of claims 1 to 7~~
wherein the MFR_2 of the copolymer is 0.15 to 0.6 g/10min.
9. (Currently amended) A shrink film as claimed in claim 1 ~~any one of claims 1 to 8~~
wherein the value of a films' dart drop (g)/thickness (μm) is at least 4.5.
10. (Currently amended) A shrink film as claimed in claim 1 ~~any one of claims 1 to 9~~
wherein said film has a thickness of 20 to 120 μm .
11. (Currently amended) A shrink film as claimed in claim 1 ~~any one of claims 1 to 10~~
wherein said shrink film is a multilayer film.
12. (Currently amended) A shrink film as claimed in claim 1 ~~any one of claims 1 to 10~~
wherein said shrink film is unilamellar.
13. (Original) A shrink film as claimed in claim 12 having a thickness of 100 to
200 μm .
14. (Original) Use of polyethylene film comprising an ethylene copolymer mixture
having a molecular weight distribution in the range 10 to 35, a density of 915 to 940 kg/m^3 , a
weight average molecular weight of at least 100000 D and an $\text{MFR}_{2.16}(190^\circ\text{C})$ of 0.1 to 0.9
 kg/m^3 , which copolymer mixture is produced by a two or more stage copolymerization of
ethylene and 2 to 10% mole (relative to ethylene) of a C_{3-12} alpha-olefin comonomer in a

series of reactors including at least one slurry loop reactor and at least one gas phase reactor using a heterogeneous Ziegler-Natta catalyst in the manufacture of a shrink film.

15. (Currently amended) A process for wrapping an object comprising applying a shrink film about said object and shrinking said film by the application of heat thereto, characterized in that said film is a shrink film according to claim 1 [[to 13]].

16. (Currently amended) An object shrink wrapped with a shrink film according to claim 1 [[to 13]].

17. (Original) A polyolefin shrink film having a Dart drop value (g) /film thickness (μm) of 5 g/ μm or more.

18. (Original) The shrink film of claim 17 comprising an ethylene copolymer/copolymer mixture.

19. (Currently amended) The shrink film of claim 17 [[or 18]] wherein the film is unilamellar.

20. (Currently amended) The shrink film of claim 17 [[to 19]] wherein Dart drop value (g) /film thickness (μm) is 6 g/ μm or more.